

V.—Notice of some new Species of Callithrix in the Collection of the British Museum. By Dr. J. E. GRAY, F.R.S. &c.

THERE is perhaps no genus of American Monkeys that appears more difficult to distinguish than the beautiful group of small Monkeys named *Callithrix*. There is a large series of them in the British Museum, and among them there are two species which do not as yet appear to have been noticed in the Catalogues.

Count Hoffmanssegg described two species many years ago. Spix has figured five; but two of the figures are so badly coloured that, if it were not for the description, one might doubt which species they were intended to represent. M. I. Geoffroy has figured two; but his figures have the defect of over-brightness, as Spix's have that of dulness.

The species in the British Museum may be thus arranged:—

1. *The fur soft, with abundant, elongated, stiffer hairs.*

a. The hands and feet red. 1. *C. cuprea*, Spix, t. 17 = *C. discors*, Geoff.

b. The hands and feet whitish. 2. *C. donacophila*, D'Orb.; 3. *C. Moloch*, Hoffm.; 4. *C. ornata*, n. sp.

c. The hands white, the feet black. 5. *C. amicta*, Geoff.; 6. *C. torquata*, Hoffm.

d. The hands and feet black. 7. *C. personata*, Geoff.; 8. *C. nigrifrons*, Spix, t. 15; 9. *C. castaneiventris*, n. sp.

The second series consists of the species which have only a soft woolly fur and the hands and feet black—as (10) *C. melanchir*, Geoff. Paris Mus. Cat., (11) *C. gigo*, Spix, t. 18: but of this group unfortunately there is not any specimen in the Museum; and they cannot be the young of the other species, as there are several young specimens of the first group in the Museum, and they have the longer bristly hairs of the adult animal.

This separation of the species by the colour of the hands may appear to be very artificial; but the hands of the different specimens from the same locality do not vary, while there is often a considerable variation in the depth of the colour in the other parts of the fur.

*Callithrix ornata*, n. sp.

Fur black and grey, punctulated; forehead and ears white; temple, cheeks, throat, underside of the body, and inner side of the legs bright red chestnut; hands and feet grey; tail black, grey-washed; hair of tail pale, with a broad subterminal ring.

*Hab.* New Granada.

Received from M. Verreaux as *C. discolor* of I. Geoffroy; but

that species has red-chestnut hands. It is more like *C. Moloch*, and may be a variety of it; but it differs greatly from Geoffroy and Dahlbom's description.

*Callithrix castaneiventris*, n. sp.

Fur dark blackish grey, minutely punctulated with grey; outside of the limbs reddish-washed; forehead, hands, and feet black; whiskers, throat, chest, belly, and inside of the limbs dark-red chestnut; tail black, tip washed with white; hair of tail black the whole length, except near the end, where the tips of the hairs are white.

*Hab.* Brazils.

VI.—*Notulæ Lichenologicae*. No. I.

By the Rev. W. A. LEIGHTON, B.A., F.L.S.

*On the Reaction of Iodine in Lichens and Fungi.*

IN his earliest writings on Lichens, and down to the present time, Dr. W. Nylander, one of the most accurate and learned of European lichenologists, has shown that the application of an aqueous solution of iodine affords a very useful aid in the examination and determination of Lichens, especially the inferior ones. By a chemical reaction the solution produces a change of colour either in the gelatina hymenea, or the spores, or the thecæ, or the thallus. This reaction is a coloration of these parts, either of a blue colour or of a vinous red (as in *Agryrium rufum*, Fr.); or if at first a blue is produced, it almost immediately changes in some instances into a vinous red. If the reaction does not take place, the parts remain simply colourless or become of a yellow tinge, similar to the colour of the solution itself. This reaction is constant; and although no reliance can be placed on it in the way of an isolated character, still it is highly useful as a valuable and unfailing confirmatory one, when combined with others, either external or internal. Such a chemical difference, however, indicates an organic difference worthy of investigation, and which might be otherwise overlooked.

This chemical reaction occurs just the same, whether the specimen of the lichen be recently or long since gathered.

But the same is not always the case in Fungi; for Dr. Nylander gathered near Helsingfors, in Finland, a specimen of *Peziza Polytrichii*, Schum., which perfectly agreed with the figure in 'Fl. Dan.' t. 1916. fig. 1, in which the gelatina hymenea in a living state became intensely blue with the solution of iodine. But on examining the same specimen two years afterwards, the iodine produced no reaction, the gelatina hymenea remaining